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MARKET ANALYSIS OF
INTEGRATED SYSTEMS OPPORTUNITIES
IN THE RETAIL INDUSTRY

PREPARED FOR
CONCEPT SYSTEMS, INC.

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I   INTRODUCTION

- This study examines the use of data processing, the potential for use of an on-line integrated merchandising system, and business characteristics of retail firms in market sectors of interest to CSI. These include:

    - Specialty Apparel ($2-10 million).

    - Discount Chains ($20-50 million).

    - Discount Chains ($50-300 million).

    - Specialty Apparel ($50-100 million).

    - Junior Department Stores ($50-200 million).

    - Off Price.

    - Outlet.

- Interviews were held within these market segments as well as with clients of CSI and with competitive vendors in order to:

    - Review the requirements and attitudes of companies in market segments of interest.

    - Project the potential of market segments for CSI.

    - Address issues affecting market success such as pricing, support, and sales methodology.

- The respondents that were interviewed are listed by type in Appendix B. The questionnaire is in Appendix A.

- Competitors that were interviewed included:

    NCR.

    STS.

    Creative Data.

    Dennison.

    RIS.

    Island Pacific.

INPUT

II   EXECUTIVE SUMMARY

A.   FINDINGS

- Retail establishments in general are hard to contact and maintain a discussion with in comparison to other groups of users.

- The amount of information that was gathered from establishments in each segment was felt to be more than was warranted for a study of retail automation.

  - It quickly became apparent that statistical information on stores had to be sought after questions were asked on computing applications and future plans for automation. Otherwise, retail respondents would lose their interest before the most important data was obtained.

  - Retailers were very reluctant to answer questions on active customers and billing as part of a study on retail automation.

- Plans for expansion were delayed by the level of automation for 11% of retail establishments as shown in Exhibit II-1. Delay was encountered less for larger stores or they were less inclined to report the fact.

- 40% of smaller retail specialty stores ($1-10 million) and 50% of smaller discount chains ($20-50 million) have no computers and only use service bureaus as shown in Exhibit II-2.   71% of outlets use service bureaus, computers in other departments or micros.

- In other market segments, the use of in-house computers is dominant and the vendor with the greatest amount of business is IBM. 60% of larger apparel specialty stores ($50-100 million) and larger discount chains ($50-300 million) utilize IBM. The most common model in use is the 4300 series (IBM 4331 or 4341).

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EXHIBIT II-1

EXPANSION DELAYED BY LEVEL OF AUTOMATION

TYPE OF STORE	DELAY OF EXPANSION
Acorn Prospects (A)	20%
Discount Chain (B) ($20-50 million)	20%
Discount Chain (C) ($50-300 million)	0%
Specialty Apparel (D) ($50-100 million)	20%
Junior Department (E) ($50-200 million)	0%
Off Price (T)	0%
Outlet (H)	10%
Average	11%

INPUT

EXHIBIT II-2

TYPE	MOST COMMON COMPUTERS IN USE	COMMON APPLICATIONS (OTHER THAN PAYROLL)	MOST IMPORTANT APPLICATIONS
A	40% - no comp. (service bureau) 33% - IBM 13% - IBM 34	AP - 8 GL - 9 AR - 7	AP - 5
B	50% - no comp. (service bureau) 20% - NCR Tie between 5 for next vendor	A - 9 GL - 8 OTB - 5	AP - 4 AP and another Application - 2
C	60% - IBM 50% - IBM 4341 or 4331	AP - 10 GL - 8 OTB - 7 POS - 6 POM - 5	POM - 3 AP and other applications - 2
D	60% - IBM 30% - IBM 38 20% - IBM 4331	AP - 10 GL - 9 OTB - 5 POS - 4	AP - 2 AP and other applications - 2
E	90% - IBM 30% - IBM 4341 or 4331	AP - 9 AR - 9 GL - 10 POS - 9 POM - 8	All - 3 POM - 3
T	56% - IBM 20% - chiefly service bureau	AP - 10 GL - 9 OTB - 5 POS - 5	All applications - 3 POM - 2
H	20% - IBM 70% - Do not have mainframe or mini of their own	GL - 3 POM - 2	None had 2 designations

INPUT

- In the segments with small retail stores and discount chains, it should be more possible to market turnkey systems that use non IBM computers. It may be necessary to consider strategies that utilize IBM computers in segments that include larger stores.

- Exhibit II-2 also shows that the applications most often mentioned across all market segments were AP and GL. AP is the most important application for four market segments.

- Department stores, large discount stores and off price stores mentioned POM as the most important application.

- Larger stores are more apt to have installed or formulated plans for an automated merchandising system and to offer less opportunities for a CSI system.

- As indicated in Exhibit II-3, development plans included merchandising systems in all segments other than small, specialty apparel stores, where development was concerned most often with just upgrading the use of EDP.

- The use of software application packages was mentioned in relation to development plans almost as frequently as the use of EDP personnel. About 50% of stores with development plans realize that they must utilize software application packages.

- In addition to marketing turnkey merchandising systems to stores, CSI should consider the opportunity of selling application packages.

- One-third of the retail establishments felt that they needed aid as shown in Exhibit II-4. Aid is needed most in smaller retail specialty stores, discount chains and in outlets.

- The need for aid is accompanied with an interest in attending a seminar as indicated in Exhibit II-4. The seminar was of interest to over 70% of prospects.

INPUT

EXHIBIT II-3

DEVELOPMENT PLANS

TYPE	DEVELOPMENT PLANS	METHOD TO BE USED
A	67% to increase use of EDP	
B	Retail merchandising systems - 3 Upgrade OTB - 3	EDP staff and packages - 2 EDP staff - 3 (1 with NCR aid)
C	Retail merchandising system - 3 POM - 2	EDP staff and packages - 4 EDP staff - 2 Packages - 2
D	Retail merchandising system - 1 Automating POM - 2	EDP staff - 4 EDP staff and packages - 2 Packages - 2
E	Merchandising system - 2 POM - 1 Automate individual stores - 2	EDP staff - 5 EDP staff and packages - 4
T	Retail merchandising system - 3 OTB - 2	EDP staff - 5 Packages - 2
H	Retail merchandising - 3 POM - 1	EDP staff - 2 EDP staff and packages - 2

INPUT

EXHIBIT II-4

INTEREST IN AID AND SEMINARS

TYPE	AID	SEMINAR AT COST	SEMINAR AT NO COST
A	40%	47%	47%
B	40%	40%	50%
C	10%	20%	40%
D	40%	40%	40%
E	30%	20%	20%
T	20%	56%	56%
H	50%	30%	30%
Average All Respondents	33%	37%	41%

INPUT

- At first glance, it appears that a seminar should only be considered as a product that had a price, since only a small percentage of attendees would be added if there was no charge. However, that small percentage includes about one eighth of the prospects for the automated retail systems.

- CSI should consider a seminar with a fee since the interest level is high, but provisions should be made to invite certain prospects on a special basis (a guest speaker or panel member).

- There was interest in an on-line automated merchandising system in all market segments as shown in Exhibit II-5.

- Over 75% of respondents interested in the system stated that accounting functions, particularly AP and GL, should be available with the system immediately. Some of the respondents who did not state that accounting functions were necessary indicated in other comments that they assumed that they would be available.

  - The availability of accounting functions appears necessary for turnkey systems such as the one offered by CSI.

  - The availability of accounting functions appears to be highly necessary in the market segment of small stores where 7 of the 9 interested respondents expect AP to be available and 5 of the 9 interested respondents expect GL and AR to be available.

- Over half of all respondents who were interested in the system and asked about modifications would modify or consider modifying the merchandising system. This does not mean that this much modification will take place. It indicates that strategies will have to be selected to persuade customers to forego some requests for modification.

EXHIBIT II-5

RESPONDENTS THAT MIGHT ACQUIRE A SYSTEM

TYPE	TOTAL INTERESTED IN SYSTEM	POSITIVE ATTITUDE TOWARD ACQUISITION	LIMITATIONS STATED*
A (15 resp)	9 (60%)	2 likely 7 possibly	1 - handle NCR registers 1 - run on IBM 34
B	7 (70%)	2 very likely 1 likely 3 possibly	1 - software mods. none 1 - run on IBM 34 or 38
C	5 (50%)	2 very likely 1 possibly	2 - run on IBM 4300 none
D	5 (50%)	2 likely 1 possibly	none 1 - run on IBM 4300
E	7 (70%)	4 very likely	2 - run on IBM computer 1 - preferably run on IBM (2 of 3 specified 4300)
T	3 (33%)	2 likely	1 - preferably run on IBM computer
H	3 (30%)	1 very likely 1 likely	1 - software mods. 1 - software mods.
TOTAL	39 (53%)	29 (39%)	

* Respondents in these cases were involved with decision making.

INPUT

- Exhibit II-5 shows that there was a positive attitude toward acquisition of an on-line retail merchandising system by 38% of all segments of retail apparel stores. Over one-fourth of the stores with a positive attitude require that the system run on IBM computers, however. The availability of the system on IBM hardware should be considered by CSI.

- 42% of the respondents that were interested in a system favored lease as indicated in Exhibit II-6. The price range in terms of purchase estimated by interested respondents averaged about $122,000 for small retail stores and about $200,000 for larger firms.

  - Firms that expected to use the system on IBM equipment anticipated a higher price for it.

  - Many respondents were including the availability of accounting software in their estimates.

  - Eight larger firms anticipated that the software alone would cost an average of $150,000.

- There are market segments in which retail establishments would consider the use of an automated merchandising in stores as well as in the home office as illustrated in Exhibit II-7. These establishments tended to be ones that are predisposed to the use of IBM.

- Exhibit II-7 also illustrates that there is a high level of supply from a sole source for users of on-line POS. CSI should be prepared to interface to NCR and IBM registers.

- Respondents would like to receive mail from vendors and hear news about other users rather than be contacted by phone directly. Many mentioned that they were contacted too often.

INPUT

EXHIBIT II-6

ACQUISITION ALTERNATIVE AND PRICE RANGE

TYPE	ALTERNATIVE FOR INTERESTED RESPONDENTS	PRICE ESTIMATE (IN $000's) BY SOME OF INTERESTED
A	5 favor purchase 4 favor lease	Average of 122 (62-175)
B	4 favor purchase 3 favor lease	3 - equal or under 150 2 - over 150*
C	2 favor purchase of software only 1 favors purchases of all 2 favor lease	1 - 150 for software alone* 2 - 150 to 200
D	2 favor purchase 2 favor lease	1 - over 150* 3 - average of 133 for software alone
E	6 favor purchase 1 favors lease	4 - 87 to 275* for the software alone 3 - 250 to 1000 for the software alone
T	2 favor purchase 2 favor lease	2 - 150 to 200* 1 - 75* and 1 - 350
H	3 favor purchase	1 - 150 to 200* 1 - 125 to 150*

*most likely purchasers

INPUT

EXHIBIT II-7

FACTORS INVOLVED WITH USE OF THE SYSTEM

TYPE	NUMBER OF INTERESTED	HOME OFFICE OR STORE USE	SOLE SOURCE POS SUPPLIER
B	7	6 home office 1 uncertain	1 of 1 with POS on-line
C	5	3 home office 2 stores also	4 of 4 with POS on-line
D	5	5 home office	3 of 4 with POS on-line
E	7	5 home office 2 stores also	5 of 7 with POS on-line
T	4	3 home office 1 store also	1 of 2 with POS on-line
H	3	3 home office	1 of 1 with POS on-line

INPUT

- Retail stores, by a ratio of 5:1, would wait for a vendor who was busy with other clients if they were interested in his system. However, these stores would be slightly more inclined to wait if the vendor was IBM.

- As shown in Exhibit II-8, respondents that indicated an alternative, favored local maintenance of hardware over a guarantee of service by a ratio of 11:8. An approach must be developed to persuade some stores that local maintenace is not a guarantee against maintenance problems. 59% of respondents thought remote maintenance of software was adequate. Larger stores found this more acceptable than smaller ones did.

- Clients of CSI rate their application software, hardware, and training higher than clients of competitors. However, CSI clients rate documentation and completeness of systems and service (an overall rating) lower than clients of competitors. An analysis of comments suggests that CSI clients may have some real problems in documentation, but that there may be problems based on the expectation level of clients.

- The clients of competitors utilize fewer people to run systems and take over operation of the system more quickly. Several competitors of CSI mentioned these objectives as desirable.

- Competitors of CSI noted that:

  - The smaller retail specialty stores constituted the most favorable market segment for new business at present, nationally and in the Northeast region.

  - Price was important in regard to retail systems but comprehensiveness of features and flexibility were more important. Flexibility included the ability to offer an initial installation of the system with a reduced number of modules.

  - A sales approach based on providing aid with problems or being a consultant was the most favorable approach in general.

INPUT

EXHIBIT II-8

MAINTENANCE ALTERNATIVES

TYPE	LOCAL OR GUARANTEED MAINTENANCE OF HARDWARE	REMOTE MAINTENANCE OF SOFTWARE IS SATISFACTORY
A	10 local 3 guaranteed	7
B	3 local 3 guaranteed	6
C	4 local 3 guaranteed	7
D	2 local 7 guaranteed	6
E	5 local 4 guaranteed	8
T	8 local 2 guaranteed	5
H	6 local 3 guaranteed	5

(Responses that are uncertain
or state both are not included)

| TOTAL
(of 75 respondents) | 34 local
25 guaranteed | 44 |

INPUT

B. RECOMMENDATIONS

- Based on the comments of respondents and vendors, a consultative approach should be used in selling. Information about a course on merchandising might be used as the basis for such an approach. It could provide a means of establishing contact and learning about needs and problems as well as a means of bringing prospects into contact with CSI methodology.

- If a seminar is offered, it should be offered for a fee since most respondents are willing to pay. However, it may be necessary to consider a means of attendance for a critical prospect that would not attend otherwise since some prospects for an automated system would not pay for a seminar.

- INPUT recommends that CSI consider a marketing approach that offers the on-line merchandising system on IBM equipment. (We recognize that implementation of the Pick system on the Series I now offers such an alternative). What is needed is sales information that allows prospects to think of installing the CSI system on IBM hardware as well as on other, less expensive equipment. An effort could be made to direct prospects toward the non-IBM systems, but the alternative might be available, at a higher price, to allow the IBM 4300 series to be used, for example. Prospects that wanted that alternative would probably be willing to pay more for it, according to the data that was obtained for this report.

- CSI should also consider using sales literature and approaches that are less concrete about the way that the merchandising system is integrated for some prospects.

    - Sales literature that is based on a comprehensive knowledge of retail business and the ability to provide aid might lead to a sale in some situations.

    - Several respondents that knew about CSI felt that it was less flexible than competitive systems.

- Respondents in general were quite opinionated about retail systems, even when they admitted that they needed aid. Many noted that the desire to develop their own systems might deter them from acquiring a retail merchandising system.

- The area of the market that offers most potential for CSI in the Northeast or on a national basis is the segment of small, retail specialty stores. The relative number of these stores and their current drive to automate offers opportunity.

- INPUT recommends that CSI consider additional areas of the retail market such as hardware and shoe stores that were mentioned by competitors.

INPUT

III   MARKET ANALYSIS OF RETAIL GROUPS

A.   SPECIALTY APPAREL ($2-10 MILLION)

I.   USE OF EDP

- Nine respondents use computers and six use service bureaus (one also uses micros in addition to a service bureau).

- Computer use includes:

    IBM 34 - 2
    Series I - I
    IBM 370/148 - I
    IBM 5210 - I
    Basic 4 - I
    Quantel - I
    TI - I
    NCR mini - I

- Service bureau use includes:

    ADP - 2
    RIS - I
    Smith - I
    Unnamed - 2

INPUT

A.   SPECIALTY APPARATUS SUPPLIERS

1.   USE OF EDP

a.   Nine respondents use physical micros in addition to larger machines.

b.   Computer use by make:

IBM 34 – 2
Series 1 – 1
IBM 370/148 – 1
IBM 4310 – 1
Basic 4 – 1
Quantel – 1
TI – 1
NCR mini – 1

c.   Service Bureau use by make:

ADP – 2
RJE – 1
SBC... – 1
Channel – 2

- Application use includes:

  AP - 8

  AR - 7

  GL - 9

  Inventory - 7

  Sales Analysis - 2

  OTB - 3

  POM - 4

  POS - 5

  Sales tickets - 2

  Payroll - 6

- Of the respondents, ten plan to increase use of EDP. Six of these retailers will begin expansion in the first half of 1984, one will begin in the second half of 1984, and three will begin sometime in the 1985-86 time-frame.

- Six respondents stated a need for aid to automate functions, four felt no need and five respondents did not know whether or not aid would be necessary.

2.   UNCOVERING PROSPECTS

- Willingness to pay for a seminar:

  - All six respondents who stated a need for aid were willing to pay for a seminar, plus one individual who did not know. Five would not pay and three did not know.

- No additional attendees result if the seminar is given without a charge.

- Interest in learning about an automated retail merchandising system:

  - Nine respondents are interested in learning about an automated retail merchandising system, five have no interest and one does not know.

INPUT

- What accounting applications should be available with the retail system:

    - AP is reported as a must by 7

    - GL and AR as a must by 5

    - POS as a must by 3

    - Payroll as a must by 2

    - Five respondents also mentioned interest in accounting applications in the future. Three stated they would be interested in a full set of accounting applications in the future.

- Receptiveness to ordering the system:

    - One respondent would be likely to order, providing documentation and testing were adequate and a local course was given.

    - Another respondent would be likely to order if the system could handle NCR registers.

    - Seven would possibly order the system. Three did not add any conditions to their intention. Two would only order if the cost was low and savings appeared certain. One wanted to have more proof about the claims of the system. One would only buy the system if it ran on the IBM 34.

- What might stop the retailers from buying the system:

    - Four respondents might hesitate because they are not sure of what they really need.

    - One mentioned financial conditions and one mentioned the commitment to a long term arrangement as possible reasons for hesitating.

INPUT

- Nine respondents would be involved in making a decision to buy and six would be somewhat involved.

- Seven respondents would rather purchase such a system, five would rather lease or rent one and three had no preference.

- The price anticipated by 8 respondents was:

$50-75,000 by one
$75-150,000 by three
$100,000 by one
$100-150,000 by one
$125-150,000 by one
$150-200,000 by one

- Two respondents thought the price should be about $4,000 per month.

- The vendors that respondents identified most with retail work included:

IBM - 12
NCR - 7
ADP - 1
Burroughs - 2
Data General - 1
RIS - 1
Sweda - 1
STS - 1
CSI - 1
Texas Instruments - 1
Apple - 1
Radio Shack - 1

INPUT

- Advertisements and direct mail are the predominant ways in which respondents find out about vendors. Five prefer to be contacted by mail, four would rather receive information from other users or contacts during a trade show and six do not care how they are contacted.

- Willingness to wait for a vendor who had a backlog of business:

  - Ten would wait for one month to one year to obtain service (average of about five months).

  - Two would not wait and three were uncertain.

- Ten respondents wanted local maintenance of hardware. Three wanted guaranteed response, one wanted both local maintenance and guaranteed response and one was uncertain.

- Seven respondents felt that remote support of application software via a communication link was satisfactory, four did not and four were not sure.

3. CHARACTERISTICS OF RESPONDENTS

- Number of stores per respondent:

  - Seven had one to three stores and three had four stores. Two of these respondents expected slight growth and one expected quite rapid growth (4 to 15 stores in 5 years).

  - Eight other respondents had between 6 and 21 stores (average 8.3). Three of these expected slight growth and one expected rapid growth (21 to 40 stores in 5 years).

- Respondents with 6 or more stores had an average of about 8,000 square feet.

- Average sales of respondents was $4.3 million. Only two respondents knew the sales in units in addition to dollars.

- On the average, respondents had 11 departments (range of 3 to 42) and 105 classes (15 to 300 classes).

- Purchase orders are initiated by buyers from headquarters for all respondents. Eight have purchase orders post-distributed after receipt at a distribution center and seven have them predistributed by store before shipment to the central distribution center.

- Six respondents have POS data capture and processing. Four have price look up.

- Open to buy is maintained by class by ten respondents and by department by five respondents.

- Respondents included nine members of top management, including controllers, and six EDP managers.

- Attention to the questions and willingness to respond waned appreciably during the questions on key statistics.

- Four respondents feel AP is the most important application. Two feel AP and another application (GL or OTB) are of highest importance. Inventory, shipping, sales reporting and sales analysis receive one vote each from four respondents.

2. UNCOVERING PROSPECTS

- All respondents have plans to increase their use of automation.

    - Six plan to upgrade applications. Two will upgrade OTB and AP in the last half of 1984 and one will upgrade AP in 1984. Two will upgrade purchasing and one will upgrade OTB and purchasing during 1985 or 1986.

    - Four plan more comprehensive moves in 1984. One will integrate applications and three plan to implement automated retail merchandising systems. Two of the latter group will accomplish this step in stages.

- The sources for achieving this development include:

    Service bureau staff - 2

    EDP staff - 2

    EDP staff or software packages - 2

    EDP staff and NCR - 1

    Consultant - 1

    Turnkey system - 1

INPUT

- Of the three respondents who plan to automate retail merchandising systems, two plan to use turnkeys and one plans to use its EDP staff to develop software for a computer that will be chosen separately.

- Need for aid to automate functions: six felt that they don't need aid and four did not know.

- Willingness to pay for a seminar: Four would pay, five were unwilling to pay and one was uncertain. He would attend if the seminar was free.

- The following respondents were interested in learning about an on-line retail merchandising system.

RESPONDENTS	WHEN WILL THEY ACT	IMMEDIATE REQUIREMENTS FOR FINANCIAL FUNCTIONS
B01	No definite plan	AP, GL
B02	No definite plan	AP
B03	Second half of 1984; have not chosen vendor	AP, GL Forecasting
B05	No definite plan	AP, AR, GL, sales reporting
B06	First half of 1984	On-line credit, AP, GL
B08	No definite plan	AP, GL, inventory
B09	Second half of 1984	On-line credit, AP, GL, payroll

INPUT

- Additional requirements and likelihood of acquisition:

RESPONDENT	OTHER REQUIREMENTS	LIKELIHOOD OF ACQUISITION
BO6	Well documented, course on the system, installations elsewhere, ability to test system	Very likely
BO1	Same as BO6 plus modification to systems	possible
BO2	Same as BO6 plus ability to run on an IBM 34 or 38 and modifications to the system	possible
BO3	Same as BO6 and slight modifications to software	very likely
BO5	Same as BO6 plus ability to run system on an NCR computer	possible
BO8	Same as BO6 plus possibility of system modification	likely
BO9	Well documented, local course on the system, installations elsewhere	cannot tell

INPUT

- All but two respondents report that they are directly involved in decision making including all respondents who were very likely or possible acquirers.

- Of the seven respondents who were interested in the automated retail merchandising system, four favor purchase and three favor lease. These respondents estimated the following prices for the system:

  - $30,000 to $45,000 for the software alone to run on an IBM 34 (B02).

  - Under $150,000 - B01 and B09.

  - About $150,000 - B08.

  - Over $150,000 for the software (B05).

  - $200-$250,000 - B03.

  - Uncertain - B06.

- One of the seven interested respondents uses POS units and acquires all of them from NCR. Other respondents listed registers that might be used on-line (see section C).

- Four of the seven respondents would not make a total switch from their present automation to the retail system, and one (B08) is uncertain. The two who would switch are B06 and B09, both of whom use service bureaus and don't have computers.

- One of the four who would not make a total switch rates himself as a very likely acquirer. This respondent uses a service bureau for accounting applications. Consequently, the firm could acquire a turnkey system and just reduce service bureau work.

INPUT

- Six of the respondents interested in the retail merchandising system would use it only at the home office or a central point. The other was uncertain.

- No respondents wanted or could estimate how many people would be needed to run a system or how much time would be necessary to take over operation of the system.

- Uncertainty of needs could lead seven of ten respondents not to consider or acquire such a system. Two could be deterred by close working relations with hardware vendors (NCR and Burroughs). One could be deterred by cost.

- The seven respondents who were interested in the retail system could all be deterred by uncertainly of needs.

- The vendors who were named most often by respondents include:

  - IBM - 8 respondents.

    - Five noted reputation.

    - Three noted retail software.

  - NCR - 8 respondents.

    - Four noted reputation.

    - Three noted retail knowledge.

    - One noted POS hardware.

  - Burroughs - Two respondents.

    - One noted retail knowledge.

    - One noted capability.

INPUT

- ADP, Basic 4, Wang, Honeywell.

    . One respondent noted each for EDP knowledge.

- The predominant methods of contact with vendors are through advertisements or mail and phone calls from vendors. Three respondents noted that they also hear about vendors from other stores, and they plus two other respondents would prefer that method of learning about vendors. The others generally prefer advertisements or mail contact.

- If vendors were busy with a backlog of business, six respondents would wait until they could be served, for two weeks to a year (average 6 months). Two would not wait, and two were uncertain. Two respondents who were good prospects would not wait, and two other prospects would wait only two weeks or were uncertain about waiting.

- The following responses were made on preferred methods of hardware maintenance.

    - Three preferred local service.

    - Three preferred guaranteed response time.

    - Three wanted both.

    - One was uncertain.

- Three of the four better prospects prefer a guaranteed response time. These three also find remote communication acceptable for software support.

- Six respondents in total find remote communication acceptable. Only one respondent does not, and three are not sure.

3. CHARACTERISTICS OF RESPONDENTS

- Number of stores per respondent.

  - Seven had 7-16 stores.

  - Three had 26-31 stores.

- Two respondents foresaw no growth.

- Four respondents expected a small amount of growth (1-10%).

- Four respondents expected growth of over 20% in the number of stores during the next three years including three of the better prospects.

- The average size of stores is 4,900 square feet. Most stores were reported to be between 3,500 and 6,000 square feet including those of four good prospects.

- Four respondents had stores in one state. The average was two states with a maximum of four states for one respondent.

- The maximum travel distance varied from 10 to 1,000 miles, with five respondents reporting distances of 100 miles or less.

- Seven respondents employ centralized receiving and two drop ship including one of the chief prospects. One respondent uses both.

- The average annual sales volume in dollars is $23 million with the largest respondent reporting sales of $35 million. Only one respondent could report sales in units.

- The average number of departments was 19.6 and of classifications was 202.

- All purchase orders were initiated by buyers from headquarters.

- Eight respondents post-distribute purchase orders, but one of these also has some orders shipped directly to stores. One of the other two respondents uses direct shipment, and the other predistributes by store but receives at a central point and ships to stores.

- Eight respondents report an average of 23% of merchandise as basic and reorderable. Five of the eight have basics ordered from a central or pooled stock.

- Inventory control is by:

  - Style, color and size at two respondents.

  - Style and color at two respondents.

  - Style at six respondents.

- Open to buy is maintained by:

  - Department by two respondents.

  - Class by three respondents.

  - Department and store by three respondents.

  - Class and store by two respondents.

- Turnaround time varies between eight hours and one week and averages about 41 hours.

- Seven respondents utilize central marking, two mark at stores and one respondent has 70% done at stores and 30% centrally.

INPUT

- Media in use includes:

  - Man readable - 6

  - Man readable and bar code - one (who is planning to convert completely to bar code).

  - Print punch - 2; one will convert to OCR.

  - OCR - 1.

- Sixty percent of respondents have two seasons. The balance have three.

- Receiving is handled on:

  - Key rec by one respondent.

  - PO by three.

  - Key rec and PO by one.

  - Key rec, PO and receiving document by two.

  - PO and receiving document by two.

  - Receiving document by one.

- Only three respondents could provide estimates of the number of tags used annually; these estimates were 200,000, 1 million and 2 million.

INPUT

- Registers in use included:

    - NCR - 8 respondents.

        . One had 720 units of model 2151

        . One had 1000 model 280.

        . One had 140 units of 3 models.

        . One had 50 model 2120.

    - NSI - 1 respondent.

    - TEK 140 - 1 respondent (20 units).

- Respondents would not or could not estimate the total number of customers or the number of active customers. At least four had internal charge accounts.

- Respondents included:

    - EDP management - 5

    - Controller - 4

    - Treasurer - 1

INPUT

C.   DISCOUNT CHAINS ($50-$300 MILLION)

1.   USE OF EDP

- None of these respondents have felt that their level of automation delayed expansion.

- One respondent was signficantly larger than the others.

- Computer use includes:

  IBM 4341 - 3
  IBM 4331 - 2
  IBM 370/138 - 1
  NCR Criterion - 1
  NCR unnamed - 1
  2 NCR computers and an HP 3000 - 1 (who is converting to IBM)
  HP and service bureau - 1

- The applications noted by respondents included:

  AP - 10
  AR - 4
  GL - 8
  OTB - 7
  Payroll - 8
  POM - 5
  Inventory - 3
  Purchasing - 2
  POS - 6
  Merchandise reports - 2
  Sales reports - 1
  Fixed assets - 1
  Distribution reports - 1

- The applications noted as most important were:

  POM - 3
  POS - 1
  POS and AP - 1
  AP and order processing - 1
  GL and merchandise reports - 1
  Distribution reports - 1
  Merchandise reports - 1
  Uncertain - 1

2.   UNCOVERING PROSPECTS

- Plans for automation that were mentioned included:

  Implementing POM - 2
  Setting up a subsystem at each store - 1
  Upgrading OTB - 1
  Upgrading POS - 1
  Installing an automated retail merchandising system - 3
  No plans - 2

- Two of the three respondents who plan to install an automated merchandising system have selected vendors. One named Dennison. The other, who named Dennison and IBM, was the firm which planned to convert to IBM hardware.

- Of the eight respondents with plans for further automation, six planned to act in the second half of 1984 and two planned to act in 1985 (one planned to automate POM and one to set up subsystems in stores).

- Development plans for the 8 respondents were:

  Use packages - 2

  Use EDP staff and packages - 4

  Use EDP staff alone - 2

- Of the two respondents who were going to rely on their EDP staffs, one planned to upgrade POS and the second to install subsystems in stores.

- Eight respondents felt they did not need aid with automation. One did need aid and one was uncertain.

- Two of the three respondents planning to install a merchandising system would pay to attend a seminar on merchandising systems. Eight respondents would not. If the seminar was held at no charge, two more would attend and two others might attend. A seminar apears to be a means of contacting possible prospects.

- Five respondents would be interested in learning about a retail merchandising system including all those who plan to install such a system.

- The three respondents who plan to install a merchandising system all want some accounting functions included with the system.

  - one wants AP

  - one wants AP and GL

  - one wants a full set of accounting functions including payroll and on-line credit authorization.

INPUT

- The two additional respondents who are interested in learning about a merchandising system want AP, GL and on-line credit authorization available with the system. One only had plans to upgrade OTB and the second to upgrade POS. Both had indicated a willingness to attend a seminar on merchandising automation if it were held at no cost.

- The conditions required by the five interested respondents included:

RESPONDENT	REQUIREMENTS	MODIFICATIONS
CO1 and CO2	Good documentation. Local course. Existing installations. Ability to test system. IBM 4341 is a must for CO1 and preferable for CO2.	CO1 anticipates a need for system modification. CO2 thinks it will probably be needed.
CO7	Good documentation. Ability to test system. Must run on 4331.	Anticipates a need for modification.
CO10	Good documentation. Existing installations. Ability to test system.	Anticipates a need for modification.
CO9	All of the above plus communication with an IBM computer.	Modification may not be required.

- These five respondents offer only two opportunities for sales unless three of the respondents could be convinced to use other than an IBM computer or the application system which they are committed to.

RESPONDENT	LIMITING FACTOR
CO1	IBM 4341
CO7	IBM 4331
CO9	Committed to Dennison

- Two opportunities for sales, CO2 and CO10, were the two firms who were willing to attend a seminar providing that it was held at no charge.

- Of the five respondents who expressed no interest in an automated merchandising system, two felt they had already installed one and three planned to develop their own.

- CO1 and CO7 would be very likely to acquire the system. CO2 and CO9 are uncertain. Their preferences for acquisition and expectation of price are listed below:

RESPONDENT	PURCHASE VS. LEASE	PRICE ANTICIPATED
CO1	Purchase of software only	$150,000
CO2	Lease of system	Over $150,000
CO7	Purchase of software only	Uncertain
CO9	Purchase	$150,000 to $200,000
CO10	Lease	Uncertain

- COI and CO2 now buy all POS units from IBM. CO7 and CO9 buys them from NCR. One other respondent who answered this question buys POS units used only in a batch mode from NCR. Only CO9 could estimate the daily volume of POS transactions, which he thought amounted to 80,000.

- COI and CO2 expect to use the merchandising system in stores and a head office. CO7, CO9 and one other respondent who answered the question only would think of using them in the head office.

- The five interested respondents could not estimate how many people would be needed to install such a system, and 3 could not estimate how quickly they might take over operation of such a system. CO2 and CO7 would expect to take over right away.

- Factors that might deter respondents from an automated retail merchandising system included:

Might develop or had developed their own system - 6

A decision to use Dennison on existing hardware - 1

Not sure of requirements - 1

Questions about packages - 1

- The vendors that respondents were familiar with were:

IBM - 10 (4 for knowledge of retail and 6 for hardware, software or maintenance)

NCR - 5 (3 for knowledge of retail and 2 for POS registers)

Dennison - 2 for software

Paris - 1 for software

TRW/Fujitsu - 2 for registers and knowledge of retail

CDC - 1 for service bureaus

- Most respondents come in contact with vendors through mail, phone calls, direct contact and advertising in this market segment. Three respondents would rather have contact more by mail than by other means and two would rather hear about vendors from other stores. Two would like to eliminate contact from vendors and only contact them when needed. In general, these firms wanted to reduce contact from vendors (and market research companies).

- Five respondents would wait for vendors if they were busy elsewhere for an average of 3 months. Two would not and three were certain. The five respondents interested in merchandising systems would not wait, were uncertain about waiting or would wait for one month (one chain).

- Four respondents wanted local maintenance of hardware and three preferred a guaranteed response time. Three were uncertain.

- Seven would accept remote maintenace of software by communication and two were uncertain. One wanted local support.

INPUT

3.   CHARACTERISTICS OF RESPONDENTS

- Number of stores:

  - Average - 160

  - Range - 15 to 700 stores

- Anticipated growth rate:

  - An average of 16% in the next 2 years

  - Only two expected a low rate of growth. Two of the larger stores expected a high rate of growth

- Average floor space:

  - 27,000 square feet

  - If the two stores with the greatest floor space (and smallest number of stores, 15 and 18) were not counted, the average floor space would be 18,000 square feet.

- Respondents had stores in an average of 13 states, with a range of three to 45 states. Five were in 11 or more states.

- The maximum distance between a store and headquarters was an average of 635 miles. If the three longest distances were not counted, the average would be 185 miles.

- Shipping was divided as follows:

    - Four had centralized receiving and distribution (two of these stores have multiple receiving points and one is a firm of $300 million revenue with all stores within 60 miles of headquarters.)

    - Two used drop shipment

    - Four were divided between centralized distribution and drop shipment (60 to 95% was drop shipped)

- Retail sales volume was divided as follows:

    - Five $60 to 100 million

    - Four had $200 to 300 million

    - One had about $1 billion

- No respondents knew or would take the time to estimate the volume of sales in units. Interest in the study had fallen off sharply by this moment.

- Respondents reported an average of 21 departments and 348 classifications.

- All purchase orders were initiated by buyers at headquarters.

- Distribution methods included:

    - Predistribution by store and shipment to a central point or to redistribution points three.

    - Predistribution and shipment to stores - two plus 60% of the volume of one chain.

INPUT

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- Distribution methods included:

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  - Predistribution and shipment to stores - two plus 60% of the volume of one chain.

INPUT

- Postdistribution from a center - four plus 40% of the volume of one store.

● Nine had an average of 20% of merchandise that was basic and reorderable. All but one of these respondents reordered from pooled stock.

● Inventory control is by:

   - Style, size and color for 6 respondents.

   - Style and size for 1

   - Style for 2

   - A different method for one

● Open to buy is by:

   - Department for 4 respondents

   - Class for 3

   - Department and store for 2

   - Class and store for 2

   - Uncertain for one respondent

● Seven respondents said they had three seasons and three had two seasons.

● Turnaround time from the distribution center ranged from one day to 1 week and had an average of 2.6 days. Only two planned to improve turnaround time or were interested in providing an answer to the question.

INPUT

- Marking was handled at:

  - Distribution centers by four respondents.

  - At stores by 2 respondents

  - At distribution centers and stores by four respondents.

- Media in use included:

  - Man readable - 6 respondents

  - Man readable and OCR - 2 respondents

  - OCR - 2 respondents

- Two respondents using man readable media were moving to OCR, and one user of OCR was moving to a bar code.

- Premarking was done by vendors for 8 respondents with 5 respondents reporting only a small percentage of such work. The other three respondents reported an average of 17% of goods premarked.

- Receiving was done on the following:

  - Key rec by 1 respondent

  - Key rec and PO by 4

  - Key rec, PO and receiving document by 2

  - Receiving document by 2

  - PO by one

- Three respondents could report the number of tags that they used (average of 28 million).

- No respondents would discuss or could discuss the number of their total or active customers. Four said they had a cash and carry business and the others would not discuss internal charge accounts. By this time, most respondents had noted that they had spent too much time with us.

- Respondents included nine people in EDP management and one controller. Multiple contacts were made in six chains.

D. SPECIALTY APPAREL STORES ($50-100 MILLION)

I. USE OF EDP

- Two (20%) of respondents felt that their level of automation level delayed expansion. One other respondent feels that it may have delayed expansion.

- Nine respondents use computers and at least two of these respondents also use service bureaus. One respondent only uses a service bureau.

- Computer use includes:

  IBM 4331 - 2
  IBM 38 - 1
  IBM 38 and 3/15 - 2
  IBM 370/148 - 1
  DEC 11/70 and ADP - 1
  Wang mini - 1

- Service bureau use includes:
  Johnson and Johnson service bureau - 1
  Northern Telecom mini and service bureau (unnamed) - 1

- Application use includes:

  AP - 10
  AR - 4
  GL - 9
  Distribution - 2
  POM -1
  POS - 4
  OTB - 5
  Purchasing - 1
  Payroll - 6
  Fixed asset - 1

- The applications noted as most important were:

  AP – 2
  POM – 1
  OTB – 1
  Uncertain – 1
  Distribution – 2
  POS – 1
  All (AP, AR, GL, OTB) – 2

2. UNCOVERING PROSPECTS

- Plans for automation included:

  Automating POM – 1 in 85

  Automating POM and POS – 1

  Automating POS – 3 (1 in 85)

  Upgrading OTB – 1

  Implementing a retail merchandising system – 1
  (Have selected the vendor).

  Upgraded processing in general – 1

  Implemented word processing – 1

  No plans – 1

- Except for the two respondents who planned steps in 85 as noted above, other respondents planned to initiate developments in the second half of 1984.

INPUT

- One of these respondents is also thinking about the development of a merchandising system but plans to develop it himself. He claims to be familiar with the software of Dennison - (TRIM) and STS and feels that the former is more complete particularly in regard to the ability to make changes in stored data. He plans to concentrate upon POS before completing the merchandising system.

- Development methods for the nine respondents who have plans for automation were:

  Use EDP staff - 4

  Use EDP staff and packages - 2

  Use packages - 2

  Use service bureau staff - 1

  Uncertain - 1

- Need for aid to automate functions: Three respondents felt that they did not need aid. Three were uncertain about needing aid, and four said that they needed aid.

- Six felt that they would not be interested in paying for a seminar, and four would attend. If the course was free, two would not attend, four would attend. Four would be uncertain about attending.

- Five would be interested in learning more about an on-line retail merchandising system. Three of these respondents were interested in attending the seminar and one was uncertain about attending.

- One respondent who did not want to learn more about a merchandising system and four who were uncertain would not change their minds if financial functions were available.

INPUT

- The five respondents who wanted to learn about the merchandising system assumed that financial functions would be available. The specific requirements that they mentioned included:

  AP, AR, GL and payroll available immediately - 1

  AP, AR, GL and POS available immediately - 1

  AP, AR, GL, payroll and on-line credit authorization - 2

  AP and GL - 1

- The interested respondents all thought it was possible that they would make slight modifications to such a system.

- Other requirements that they had included:

  - Good documentation, a local course and availability on an IBM 38 -1 respondent.

  - Good documentation, a course (local was not mentioned), installations elsewhere and the ability to test the system - 2 respondents, one of whom would require that the system run on an IBM 4341 but ranked himself as a possible prospect. The other ranked himself as a likely prospect.

  - Good documentation, a course and ability to test the system - 1 respondent, who intended to develop his own system.

  - Ability to test the system - one respondent, who would also be a likely prospect for buying the system.

INPUT

- The two likely prospects for acquiring the system included one firm that would attend the seminar. One of these firms favored purchase but would not estimate the price of the system. The other favored lease and estimated a price of $150,000.

- Of the other three respondents who were interested in learning about the merchandising system, two favored lease and one favored purchase. One thought the price would be between $150,000 and $250,000 for the software alone (including financial functions). The other two thought the price for software alone would be about $100,000.

- The five respondents interested in the merchandising system would all use such a system only in the home office.

- Four of the five respondents had on-line POS systems, and three of these purchased them from one source. None of the four was certain of current daily POS transaction volume.

- Two of the five interested respondents would consider switching systems in order to use this application.

- Five respondents thought that they could be deterred from acquiring a merchandising system by a desire to develop their own. One felt an unwillingness to switch EDP equipment would deter him. Four felt that an uncertainty about requirements might deter them.

- One of the two likely prospects felt his firm could be deterred by a desire to develop the system in-house. The other could be deterred by an uncertainty about requirements.

INPUT

- Vendors that respondents associated with retail business included:

  - IBM - eight respondents, mostly for reputation and knowledge of the industry.

  - NCR - three for knowledge of the industry.

  - TRW/Fujitsu - two for registers and price lookup.

  - Dennison - two for software.

  - STS - one for software.

  - Johnson and Johnson - one for processing service.

- Advertisments and mailings are the dominant means of contact by vendors. Five respondents also mentioned phone. Respondents prefer contact by mail or advertisements first. Only one mentioned phone as a preferred method of contact. Two mentioned learning about vendors from other stores as a preferred method of contact.

- Five respondents would wait for a vendor that was busy. One of these would wait indefinitely, one would wait 6 months and 3 were uncertain of the time period that they would wait. Only one would not wait, and four did not know if they would wait.

- Two respondents wanted local maintenance of hardware, seven would accept a guaranteed response time and one was uncertain.

- Six respondents would accept remote maintenance of software via telecommunications, two would not and two were uncertain. One who would not stated that he wanted local coverage.

INPUT

3. CHARACTERISTICS OF RESPONDENTS

- The number of stores varies from 22 to 350. The average number is 133.

- One firm expects no growth and two are uncertain of the rate of growth. Four stores expected growth of over 20% in the next two years but slower growth over the next five years. Three expect rates of growth of between five and ten percent for the next two years and the next five years.

- The average area of stores for these firms varied between 1,800 and 5,000 square feet. The average was 3,185.

- Stores are located in an average of 22 states for these respondents and vary from four to 40 states. The distance from headquarters to the most distant store varies from 250 to 2,600 miles and averages 1,518 miles.

- Seven respondents employ centralized receiving and distribution, but three have multiple locations for receiving and distribution. Two drop ship. One has chiefly (92%) drop shipment.

- The average revenue of respondents is $67.3 million. Only two respondents could or would estimate the volume in units.

- Respondents had an average of 14 departments and 151 classifications.

- Purchase orders were initiated by headquarters buyers for all respondents.

- Purchase orders are:

    - Predistributed by store and shipped to a distribution center for one respondent.

    - Predistributed and shipped to stores for 2.

    - Postdistributed after receipt at a center or at a regional distribution point for 6.

INPUT

- Eight have merchandise that is basic and reorderable (average of 19%). Three of the respondents reorder basic merchandise from a pooled stock.

- Inventory control is by:

  - Style, color and size for five.

  - Style and color for one.

  - Style for four.

- Turnaround time varies between one day and five days and averages about two days.

- Open to buy is by:

  - Department for three respondents.

  - Class for two.

  - Department and store for three.

  - Class and store for three.

- There are four seasons at five respondents, three seasons at two respondents and two seasons at three respondents.

- Marking is done at stores by two respondents and at centers by the others. The following methods are used:

  - Man readable - three (one planning to go to bar codes).

  - Man readable and OCR - four (three going completly to OCR).

INPUT

- Man readable and bar code - 1.

- OCR - 1.

- Print punch - 1.

● Receiving is done on:

- Key rec by three respondents.

- Key rec and PO by three.

- Key rec, PO, receiving document and invoice by one.

- PO by three.

● Four respondents could or would not estimate the number of tags used annually. Two said millions.

● One respondent had premarking arrangements with vendors (an average of 27% of merchandise).

● Electronic registers in use included:

- 112 IBM 5265.

- 45 DTS 521.

- 250 TRW/Fujitsu.

- 110-115 TRW/Fujitsu.

- 120 NCR 250 and 24 Fujitsu 7800.

- 198 Sweda.

- 80 Chase 2130.

- Only three respondents would discuss the number of total and active customers. Two or three may have had internal charge accounts. The rest mentioned VISA and MasterCard or said that they had a cash and carry business. The respondents were very anxious about terminating the interview by this point.

E. JUNIOR DEPARTMENT STORES ($50-$200 MILLION)

I. USE OF EDP

- The upper boundary of the sample was changed to $200 million with the agreement of CSI.

- No respondent reports that expansion has been delayed by the lack of automation.

- The computer use includes:

  IBM 370/148 - 2, one also has two NCR 8270's
  IBM 4331 - 2, both also have NCR minis
  IBM 4341 - 1
  IBM 34 -2
  IBM 370/115 - 1
  IBM 3033 - 1
  DEC 11/70 and 2 NCR 8265 -1

- Application use includes:

  AP-9
  AR-9
  GL -10
  POS - 9
  Purchase Order Writing - 1
  OTB -8
  POM - 8
  Own merchandising system - 3
  Payroll - 10
  Sales reports - 2

INPUT

- The applications noted as most important were:

  All - 3
  Merchandising systems - 3
  Accounts receivable - 2
  Uncertain - 2

2. UNCOVERING PROSPECTS

- Seven of these respondents thought that they had or were in the process of installing a retail merchandising system.

- Automation plans included:

  Automation at individual stores - 2
  Purchase order management - 1 (in 85)
  Upgrade of receivable processing - 1
  Store information system and electronic mail - 1
  Open to buy - 1
  POS - 1 (in 85)
  Credit application system - 1
  Merchandising system - 2

- Except as noted, development plans listed above will be initiated in 1984 by respondents. Two will initiate work in the first half and six in the second half.

- Development methods will include:

  - EDP staff for 5 respondents.

  - EDP staff and packages for 4.

  - Packages for 1 (this respondent meant that principal reliance would be on packages)

- Three respondents feel that they could use aid in automating functions and two are uncertain. Five do not think aid is necessary.

- Two are willing to pay for a seminar on merchandising and one is uncertain. No changes occur if the course is given at no charge.

- Six respondents would be interested in learning about an on-line merchandising system. Four were not interested. One respondent became interested if financial functions were also added to the system

  Of the seven respondents who were interested, four stated requirements for financial functions that have to be available with the system immediately:

  - E02 requires GL.

  - E05 requires AP.

  - E06 requires on-line credit, AP, GL, AR, payroll and financial cash flow.

  - E08 requires on-line credit, AP, AR, GL and payroll

- Other requirements include:

  - E02 wants good documentation, a course on the system, installations elsewhere, the ability to test the system and the ability to run on an IBM 4331.

  - E06 has the same needs as E02 including the needs to run on IBM equipment (3033).

  - E05 is similar to E02 but wants the course to be local and prefers that the system run on IBM equipment (4300 or 38).

INPUT

- EO8 wants the system to be installed elsewhere and well documented but feels that the ability to run on IBM is not necessary.

● These four respondents all thought that they would make at least slight modifications to such a system.

● Three other respondents expressed interest in learning about the system, but had little to say about requirements for such a system. Two felt that they already had systems nearly complete and the third was only slightly interested and felt it would cost too much.

● EO2, EO5, EO6 and EO8 all thought that they would be very likely to acquire the system.

● EO2 wanted to lease such a system but the six others who expressed interest in such a system favored purchase.

● The price levels that were anticipated for the system included:

$75-100,000 for the software - 1 (EO6)
$200,000 for the software - 1 (EO8)
$250-$300,000 for the software - 2 (EO5 and EO2)
$250,000 for the software - 1
$1,000,000 for the hardware and software - 1
$250,000 for the software and
$3,000,000 for the hardware - 1

● Eight respondents had on-line POS. Five respondents among the seven interested in a merchandising system report that they buy POS service from one source. (3 from NCR and 2 from IBM).

● EO8 was uncertain about making a total switch from present automation to a merchandising system. EO6 expressed interest in doing so, but still might want IBM hardware Other respondents interested in the application were uncertain about switching systems.

- Three of the respondents interested in the application would consider using a system in stores as well as in the home office.

- These respondents were uncertain about how many people would be required for such a system. Two felt that they should take over the system in three months or less. The others were uncertain.

- A desire to develop their own systems could deter six of ten respondents including EO2 and EO6 from acquiring an on-line merchandising system. A desire to limit commitments or proceed slowly could deter two other respondents. Two were uncertain about this question.

- Vendors that respondents associated with retailing include:

  - IBM by 8 respondents mostly for reputation.

  - NCR by 4, 2 for POS registers and 2 for knowledge of retail.

  - Data General and Burroughs by one each for equipment.

  - ACI by 2 for retail software.

  - STS by 2 for retail software.

  - Island Pacific by one for retail software

  - CSI by one for retail software.

- The means by which respondents come into contact with vendors include:

  - Advertisements, mailings and phone - 3

  - Advertisements, mailings, phone and contact from other users - 3

  - Mailings and phone - 2

INPUT

- Advertisements and contacting vendors when desired - 1

- Every possible method including conferences - 1

- Most respondents want to reduce phone contact from vendors and increase the information that they receive from other users or about other users

- Seven respondents would wait an average of seven months for a vendor who was busy with other clients. Two are uncertain about waiting and one would not.

- Five respondents want local maintenance of hardware. Four would be satisfied with a guaranteed response, and one wants both.

- Eight respondents would accept remote maintenance of software by communication. One would not and one is uncertain.

3.   CHARACTERISTICS OF RESPONDENTS

- Respondents have an average of 11.5 stores and a range of 8 to 15 stores.

- Average growth in two years is predicted to be about 10%. Most respondents do not expect much additional growth in five years (average annual growth would be below 3% in that period according to estimates).

- Respondents have stores in an average of 1.7 states and the average distance between headquarters and the most distant store is is 250 miles. If the company that has stores in Florida and a Northern State were not counted, the average distance would be reduced to 95 miles.

- Nine respondents employ centralized receiving and one uses drop shipping.

- The annual sales volume is $99 million and varies from $50 to $200 million. Respondents were not prepared to estimate annual volume in units.

INPUT

- The average number of departments is 114 and the average number of classifications is 1010.

- Respondents report that purchase orders are initiated by:

  - Headquarters buyers for all orders - 8

  - Headquarters buyers for 30% of orders - 1

  - Headquarters buyers for 95% of orders - 1

- Purchase orders are:

  - (1) Predistributed by store and shipped to center - 2

  - (2) Predistributed by store and shipped to store - 1

  - (3) Postdistributed after receipt at center - 6

  - Split 40% of (2) and 60% of (3) - 1

- On the average, 22% of merchandise is basic and reorderable and varies from a very small or negligible amount to 30%. Only two respondents do not reorder it from a central pool.

- Inventory control is by:

  - Style, color and size - 7

  - Style and color - 3

- Turnaround time varies from eight hours to five days and averages about two days.

INPUT

- Open to buy is by

    - Department - 3 respondents
    - Class - 3
    - Department and store - 2
    - Class and store - 2

- There are four or more seasons at seven respondents and three seasons at two respondents. At one respondent, the situation is uncertain.

- Seven respondents handle marking at the distribution center and one handles 95% of it there. Two respondents handle it at stores.

- Marking media include:

    - Magnetic - 1
    - OCR - 5
    - OCR and man readable - 1, converting to all OCR
    - Man readable - 2, 1 will convert to OCR
    - Print punch - 1

- Receiving is done on

    - Key rec - 6
    - Key rec and PO - 3
    - Key rec, AP and vendor documents - 1

- Electronic registers in use include:

    - 600 IBM - 1
    - 100 NCR 2151 - 1
    - 800 Datatrol - 1
    - 500 NCR 280 and 300 NCR 120 - 1
    - 300 IBM 3653 - 1

- 250 NCR 280 and 550 and 50 NCR 2142 - 1
- unnamed models of NCR - 2
- unnamed models of IBM - 1

• Few respondents would discuss total and active customers.

• The average number of billing cycles supplied by seven respondents was 4.9.

• Respondents reported an average percent of sales transactions that are internal charges varying from 50% to 68%. The average was 56%.

• Respondents included eight people in DP management and two in top management.

INPUT

F. OFF PRICE RETAILERS

I. USE OF EDP

- The firm with the largest floor area of stores was dropped from the sample.

- The level of automation has not delayed expansion for any of these firms.

- Computer use includes:

  IBM 4331 - 1
  IBM 34 - 2
  IBM Series 1 and 3 computers - 1
  IBM Series 1 and a Wang Computer - 1
  Basic Four - 1
  Microdata - 1
  Altos micro and service bureau - 1
  ADP, CDC and an unnamed service bureau - 1

- Applications in use included:

  AP - 9
  AR - 2
  GL - 8
  OTB - 4
  Payroll - 6
  POM - 3
  POS - 4
  Unit Control - 1
  Invent Control - 2
  Sales Analysis - 1
  Store Transfers - 1

INPUT

- Most important applications were thought to be:

    All applications - 3
    AP - 2
    Inventory Control - 2
    POM - 1
    POS - 1

2. UNCOVERING PROSPECTS

- Plans for further automation included:

    Upgrading POS - 2
    Upgrading OTB and POM - 1
    Upgrading inventory control - 1
    Upgrading all systems - 1
    Installing an automated retail merchandising system - 3
    No plans - 1

- One of the three respondents planning to install a merchandising system plans to use IBM or Data General for aid. The other two are uncommitted and plan to use packages. The other respondents with plans for change intend to use:

    EDP staff alone - 5
    EDP staff and packages - 1

- Six respondents do not think they need aid with automation including two of those planning to install a merchandising system. One thinks he does and two are uncertain including the third respondent planning to automate merchandising.

INPUT

- Five respondents would pay to attend a seminar on merchandising systems and three would not pay. One is uncertain. Two of the three respondents with plans for a merchandising system would come.

- No additional respondents would come if the course was free.

- Three respondents would be interested in learning more about the automated retail merchandising system that was described. Three were uncertain, and three were not interested; none of these became interested financial functions were included with the system.

- Only one of the three respondents with plans for such a system was interested. One was not and one was uncertain.

- The three respondents interested in learning about the merchandising system wanted the following functions included with it:

  - TO3 - AP at once, GL and payroll later.

  - TO5 - AP, GL and payroll immediately.

  - TO8 - GL and payroll at once; on-line credit later.

- Their additional requirements include:

  - TO3 - well documented, installed elsewhere and available for test.

  - TO5 - Available for test, capable of communication with IBM computers and, preferably, runs on an IBM computer.

  - TO6 - Well documented, installed elsewhere, course on system available and capable of communicating with an IBM computer.

- Respondent TO3 does not think system modification would necessarily be needed but the others do.

- TO8 cannot tell, but the other two respondents feel that they would be likely to buy the system.

- TO3 and TO5 would be involved in making such a decision but TO8 is only somewhat involved.

- Preferences for acquisition and anticipated prices are shown below:

RESPONDENT	LEASE OR PURCHASE	ANTICIPATED PRICE
TO3	Lease	$150,000 – $200,000
TO5	Purchase	$150,000 – $200,000
TO8	Purchase	Over $350,000

- Two of these four respondents have POS systems and one only buys POS units from a single vendor (NCR).

- TO3, who uses service bureaus would consider making a total switch to a new system.

- TO3 would use such a system in the home office and stores. The other 2 interested respondents would only use it in the home office.

- The three respondents interested in the application were uncertain about how many people would be required to run the system or the duration of time necessary to take over operation.

INPUT

- Reasons for possibly deciding not to go ahead with such a system include:

    - Have developed or will develop such a system - 5

    - Uncertain of requirements - 2

    - Internal politics - 1

    - A need to obtain such a system on credit - 1

- Vendors that respondents feel are known for retail automation are listed below:

    IBM - 9
    NCR - 5
    Sweda - 1
    Wang - 1
    Altos - 1
    Data General - 1
    STS - 1

- Sweda is known for cash registers and others for their knowledge of retail business generally.

- The method by which respondents learn about vendors includes advertisements and mail principally. Phone contact was not mentioned as much as it was for discount chains.

- One respondent mentioned hearing about vendors from other users and four mentioned that they preferred this method of contact. Mail was mentioned as the preferred method of contact by all but one respondent.

- Six respondents would wait for two months to a year for vendors that were busy with other accounts (average of over four months). One respondent would only wait for IBM. Two would not wait and one was uncertain.

INPUT

- Two respondents want a guaranteed response time and seven want local maintenance.

- Five would be satisfied with remote software maintenance by means of a communication link. Three are uncertain about this, and one would not be satisfied.

3. CHARACTERISTICS OF RESPONDENTS

- The number of stores varies from two to 300 for respondents with an average of 54 stores. If the respondent with 300 stores is not counted, the average would be 23 stores.

- Five respondents do not expect much growth. Three expect over 50% growth in the number of stores in the next two years and one expects a growth of 10% in that period.

- The plans for growth in five years are not thought out for most firms.

- The average size of stores is 21,555 square feet. For seven of the respondents the average is only 12,000 square feet.

- The firms are located in an average of four states. Six are in four or less states.

- The store that is farthest away from headquarters ranges from 3 to 2500 miles for respondents with an average distance of 481 miles. If the respondents with the two greatest distances are not counted, it would reduce the average distance to 113 miles.

- Centralized receiving and distribution is used by four respondents. Two use drop shipping and three use both methods.

- The average annual revenue varies from $15 million to $1 billion. Average size is $158 million for all nine, and $65 million for the smallest eight respondents.

- No respondent knew the annual volume in units.

- The average number of departments is 16. The average number of classifications is 163 and the number varies from 40 to 270.

- All purchase orders originate from headquarters buyers.

- One respondent has purchase orders predistributed by stores and shipped to a center. Five have purchase orders post distributed after receipt at a center (two of these firms have multiple distribution centers). One evenly splits his distribution between these methods and two split distribution between direct shipment and distribution from center.

- Eight respondents have an average of 8% of merchandise that is basic and reorderable. Five of these respondents reorder from a central stock and three do not.

- Inventory control is by:

    - Style, color and size at 3 respondents.

    - Style at 5.

    - Class code at 1.

- Open to buy is maintained by:

    - Department by 3 respondents.

    - Class by 3.

INPUT

- Department and store by 2.

- Class and store by 1.

● Turnaround time varies from less than six hours to one week. The average is about two days. Improvement is planned by at least four respondents.

● Marking is handled at.

- Distribution centers - 4

- Stores - 4

- At both - 1

● The media in use includes:

- Man readable - 6

- Hand written - 1

- Print/punch - 1

- Electric sensed - 1

● Two respondents that are using man readable media plan to go to OCR, and the respondent using print/punch plans to go to bar codes.

● Four respondents have two seasons and five have three seasons.

● Respondents are currently receiving on:

- Key rec - 4

- P O - 5

INPUT

- Only one respondent could or would estimate the number of tags used annually.

- Premarking was used by four respondents and two had a significant amount.

- Register use included:

  - NCR - 3 respondents, average of 80

  - Sweda and NCR - 1

  - Sweda - 1, with 40

  - IBM - 2, one with 90

  - Tek - 1

  - Older, unnamed registers - 1

- Figures on the number of customers or active customers were not supplied or unknown by most respondents. Only two said that they had internal charge accounts.

- Respondents included:

  - EDP managers - 6

  - Management including controllers - 2

  - Director of Administration - 1

G. OUTLETS

I. USE OF EDP

- Level of automation has delayed the expansion of one respondent. One is uncertain.

- The level of automation varies widely in this type of firm as shown in the following list:

    No automation but plans for an automated retail merchandising system - 1
    No automation and no plans - 1
    Use computers installed elsewhere in company - 2
    Personal computers - 1
    Personal computers and service bureau - 2
    Small Burroughs computer - 1
    IBM 34 and service bureau - 2
    IBM 370/158 - 1

- Application use includes:

    AP - 2
    AR - 2
    GL - 3
    Payroll - 2
    Inventory - 2
    POM - 2
    POS - 1
    OTB - 2
    Sales Reports - 2

INPUT

- Only four respondents designated an application as most important. These applications were:

  AP
  Sales Reporting
  POM
  Inventory

2. UNCOVERING PROSPECTS

- Plans for automation include automating or upgrading:

  - All systems - I respondent will in the first half of 84 with his EDP staff and packages

  - OTB and sales analysis - I respondent will in 1985 with his EDP staff and packages

  - Retail merchandising - I respondent will in 1986 with packages (HO3)

  - POS, sales reporting, POM - I respondent will in the second half of 1984 with packages (HO4)

  - Retail merchandising - I respondent is starting in the first half of 1984 with the help of IBM (HO6)

  - Inventory - I respondent will do this in 1985 with the aid of a service bureau.

- Five of these respondents feel they need aid with EDP and one is uncertain. One of the five needing aid is counting on IBM.

- Three respondents including HO3 would pay for a seminar on merchandising systems and two are uncertain. If the course was free, HO6 would consider attending.

INPUT

- Three respondents would be interested in learning more about an on-line merchandising system and three are uncertain

  - HO3 was uncertain and HO6 was not interested. These are the two respondents now planning to automate such a system.

  - No additional respondent would become interested if financial functions were added to the system

- Of the three respondents interested in learning about such a system, two expected financial functions to be available

  - HO4 expects AP, AR, GL, and payroll to be available immediately.

  - HO8 expects AP, AR and stock replenishment reports to be available immediately.

- The additional conditions which these respondents noted are listed below:

  - Good documentation, local course, installation elsewhere and modifications to the software - HO4 (a very likely buyer).

  - All conditions listed above - HO7 (uncertain).

  - Good documentation and installations elsewhere - HO8 (a likely buyer).

- HO4 would be involved in making a decision and the other two prospects would be somewhat involved.

- All three prospects favored purchase. HO7 would not estimate a price for such a system. HO4 thought it would be between $150 and $200,000 and HO8 thought it would be $125 to $150,000.

- One respondent had on-line POS devices and had bought them from a single source.

- The prospects would only consider using a merchandising system in their home offices.

- Only one prospect (HO4) would estimate the number of people that would be required to run the system (3-5) or the time that would be necessary to take over operation of the system (12 to 18 months).

- Reasons why respondents might not utilize an on-line merchandising system included:

  - The decision may be made by other offices of the firm - 2

  - Have not seen an adequate system - 1

  - Not sure of needs - 2

  - A desire to limit commitments - 1

  - Desire to develop own system - 1

  - Uncertain about the answer to this question - 3

- Vendors that respondents associated with retail merchandising were:

  - IBM - 5, based on general reputation for four and POS registers for one.

  - NCR - 2, based on reputation for one and cash registers for the other.

  - Texas Instruments - 1, based on software package.

- DEC - 2, based on equipment capabilities.

- Burroughs, Quantel - 1 each, based on equipment.

- Wang - 1, based on software and hardware.

- No one - 1 respondent emphasized that only big stores like Loehmans and Saks knew about retail and that no vendor did.

- The methods by which respondents hear about vendors includes:

  - Mailings alone - 4, one of whom also heard from IBM directly

  - Advertisements and mailings - 2

  - Phone calls and mailings - 2

  - Initiate contact to vendors - 1

  - Do not hear very much - 1

- These respondents had far less contact with vendors and preferred to receive mailings from them than have direct contact, in general.

- Eight would wait for a vendor if he was busy with other accounts for a period that averaged about 4.5 months. Two respondents were uncertain about what they would do.

- Six respondents would want local maintenance of hardware. Three wanted a guaranteed response. One was uncertain.

- Five would accept remote support of software through data communication, three would not and two were uncertain. Two of those who would not accept remote support said that they wanted local service.

INPUT

3. CHARACTERISTICS OF RESPONDENTS

- Respondents vary in the number of stores involved in their outlet business from one to 45 stores. Seven had 10 or less stores. The average was 13 stores.

- Average floor space was 10,000 square feet.

- Respondents have stores in an average of four states. The number varied from one to 10 states.

- The distance between headquarters and the most distant store varies from 25 to 3,000 miles and has an average of 900 miles.

- Four respondents use centralized receiving and distribution, two drop ship and one has an even split among these methods. Three respondents did not answer since they have one store.

- The average annual sales volume is $11,000,000 and varies from two to $40 million. No respondent could report annual sales in units.

- The average number of departments varied from two to 30 and had an average of 6.9. The average number of classifications varied from 18 to 150 and has an average of 44.

- All respondents report that purchase orders are initiated by headquarters buyers.

- Purchase orders are:

    (1) Predistributed by store and shipped to a central point - 0

    (2) Predistributed and shipped direct to stores - 1

    (3) Postdistributed - 6

INPUT

98% of (1) and 2% of (3) - 1

50% of (2) and 50% of (3) - 1

70% of (2) and 30% of (3) - 1

● The percentage of merchandise that is basic and reorderable varied from five to 80% and has an average of 40%. Eight reorder basics from a central or pooled stock.

● Inventory control is by

 - style, color and size for 1

 - style and color for 3

 - style for 6

● Turnaround varies from 1 day to 1 week and averages about 2.5 days.

● Open to buy is by

 - department - 1

 - class - 2

 - department and store - 2

 - class and store - 2

 - uncertain or do not use this type of plan - 3

- Marking is done at distribution centers by six respondents and at stores by four. The media in use is:

  - Manual - 2

  - Man readable - 5, two are going to OCR

  - OCR - 3

- Five respondents have two seasons, three have three seasons and two have four seasons.

- Receiving is currently handled on

  - Key rec - 1

  - Key rec and PO - 2

  - PO - 3

  - Vendor packing list - 1

  - Vendor invoice - 1

  - Receiver document - 1

  - Special document - 1

- Three respondents have premarking arrangements but are unsure of percentages.

- Registers in use included:

INPUT

- 250 NCR 2152 - 1

- 56 NCR unnamed model - 1

- 13 NCR unnamed model - 1

- 48 NCR unnamed model - 1

- 20 Sweda 201 and 20 Data terminal 521 - 1

- 21 Sweda 050 - 1

- 3 Sweda - 1

- IBM unnamed model number - 1

- Uncertain or confused - 2

- Respondents were not informative or knowledgeable about the number of total customers, active customers or billing cycles. Eight respondents stated that their business was cash and carry.

- Respondents included five members of store management and five members of EDP management.

IV.   COMPETITIVE ANALYSIS

A.   COMPARISON OF CLIENTS OF CSI AND OF COMPETITORS

I.   COMPARISON OF USE OF EDP

- Has your level of automation delayed your expansion plans:

    - CSI clients:

        . Four (4) no.

        . One (1) yes.

        . One (1) Don't know.

    - Competitors' clients.

        . Six (6) no.

        . Three (3) yes.

        . One (1) don't know.

- Use of computers and vendor software.

    - CSI clients:

        . Microdata Sequel - 3 respondents.

        . Microdata unnamed - 1.

        . Honeywell level 6 - 2 (one also mentioned a Burroughs computer).

- Competitors' clients.

COMPUTERS	VENDOR SOFTWARE
IBM 370/158	IBM
HP, Burroughs and Data General	STS
Wang	Creative Data
IBM 370/148 & 4331	TRG
Basic IV and Data General	STS
Texas Instruments	RIS
IBM Series 1 and 3033 and	
NCR criterion 8550	Fujitsu
IBM 38	Island Pacific
Data General Nova	STS
IBM 34	Island Pacific

2.   EVALUATION OF MERCHANDISING SYSTEMS

- The evaluations of the automated retail merchandising system are made on a numeric basis with five representing a very high rating and one representing a low rating. The average ratings given by respondents follow:

EVALUATION FACTOR	RATING OF CSI CLIENTS	RATING OF COMPETITORS' CLIENTS
Completeness of service		
and systems	3.5	4.2
Documentation	2.8	3.5
Training	3.7	3.4
Application Software	4.3	3.4
Hardware	4.4	3.9

INPUT

- Analysis Of Evaluation

EVALUATION FACTOR	NUMBER OF SCORES FOR CSI CLIENTS	NUMBER OF SCORES FOR COMPETITORS' CLIENTS
Completeness	One – 2 Score Three – 3 Scores Two – 5 Scores	One – 3 Score Six – 4 Scores Three – 5 Scores
Documentation	One – 1 Score One – 2 Score Three – 3 Score One – 4 Score	One – 2 Score Five – 3 Scores Two – 4 Scores Two – 5 Scores
Training	One – 2 Score One – 3 Score Three – 4 Scores One – 5 Score	Two – 2 Scores Two – 3 Scores Four – 4 Scores One – 5 Score One – Uncertain
Software	One – 3 Score Two – 4 Scores Three – 5 Scores	One – 1 Score One – 2 Score One – 3 Score Four – 4 Scores One – 5 Score Two – Uncertain
Hardware	One – 3 Score One – 3.5 Score Four – 5 Scores	One – 2 Score Two – 3 Scores Two – 4 Scores Three – 5 Scores Two – Uncertain

- Comments During Evaluation

CSI clients.

- A client who gave a three score for completeness (his low score for evaluation) felt customer support needed to be improved, particularly response time to problems. This client felt uncertain about switching vendors.

- A client who gave a 2 score for completeness stated that CSI had not met promises and felt that schedules for implimentation were not met. He would not consider switching vendors.

- One client felt that software maintenance should be improved and one felt hardware should be improved. The latter would change vendors for better hardware. The former felt too locked in to consider switching.

- One client felt documentation should be changed but was uncertain about switching vendors.

- Based on this analysis, INPUT feels that CSI should explore client support. There may be problems to address. The expectation level of clients might also need to be explored.

Competitors' clients.

- One client of STS felt that documentation and application processing should be improved but would not consider switching vendors.

- The client of Fujitsu would switch vendors to upgrade merchandising capabilities.

- A client of STS feels that they will switch computers to upgrade capabilities for expansion plans. (IBM is the most likely choice).

- A client of IBM will upgrade computers but stay with IBM and software that will run on it.

- Staff devoted to the system.

- CSI clients use 11 people on the average. The figure varies from about five to over 20 people. Four felt the staff was adequate. One felt four more people were needed and one was uncertain.

- Competitors' clients reported an average of 25 people but three clients reported that the EDP staff handled a wider set of functions than merchandising. If these respondents are not counted, the average of the other seven is 4.2. Two feel that the number is low and one is uncertain (these respondents had four or less devoted to the system).

INPUT

- Time To Take Over Operation Of The System

CSI clients.

- Two are not sure about the time it will take them, since takeover is not yet complete.

- Three reported time periods of four weeks, six months and one year. The respondent who took over operation in one year felt that it could have ben done earlier, but the other two thought that the time could not have been shortened.

- One took over operation immediately and felt that was adequate.

Competitors' clients.

- Two are not sure of the time it will take.

- Five reported time periods of one week, a few months, six months (two respondents) and 1.5 years. The last plus one of the respondents who reported six months felt that they could have taken over operation earlier. The others felt the time could not have been shortened.

- Three took over operation immediately and felt that was adequate.

- Comparison of takeover:

TIME SPAN	CSI CLIENTS	COMPETITORS' CLIENTS
Immediate Takeover	One of 6	Three of 10
Other Short Periods	One (4 weeks)	Two (1 week and a few months)
Longer Periods	Two – 1 year (could have been shortened); 6 months	Three – 1.5 years and 6 months (both could have been shortened); 6 months

INPUT

- The experience of CSI is not as favorable as that of the group of competitors.

3.   BACKGROUND INFORMATION

a.   Knowledge Of Vendors

● Vendors mentioned by CSI clients include:

- IBM - 5 respondents for general reputation, but one said IBM was not flexible. 3 mentioned IBM software.

- NCR - 3 for reputation, POS terminals and good support

- Honeywell and Burroughs, one each for good hardware.

- STS - 1 for good software.

- Paris - 1 for good software.

- Fujitsu - 1 for POS terminals.

- Wang - 1 for retail systems.

● Vendors mentioned by competitors' clients include:

- IBM - 9 respondents for general reputation, hardware and software.

- NCR - 3 for general reputation and 2 for POS.

- STS - 4 for retail software.

- Island Pacific - 2 for retail software.

- CSI - 1 for retail software.

INPUT

- RIS - I for retail processing.

- SMART Software - I mention.

b.   Method Of Contact By Vendors

● CSI clients.

- Advertisement, mail and telephone calls predominate with one respondent also mentioning contact with other users. They would prefer to be contacted by telephone less and to look around more.

● Competitors' clients.

- Advertisements, mail and telephone calls predominate with two also mentioning contact with other users. Less contact by telephone is also desired by these respondents. Mail and contact with other users is favored.

c.   Time That Respondents Would Wait For Vendors

● CSI clients.

- Two would wait, one for six months and one for weeks.

- Four would not wait.

● Competitors' clients.

- Five would wait for two weeks to three months.

- Two would not wait and three are uncertain.

d.   Maintenance Response

- CSI clients.

    - Two want local hardware maintenance, three want a guaranteed response and one wants both.

    - Five find remote maintenance of software acceptable and one is uncertain.

- Competitors' clients.

    - Six want local hardware maintenance, three want a guaranteed response time and one is uncertain.

    - Six find remote maintenance of software acceptable. Two do not and want local support. Two are uncertain.

INPUT

IVB. VENDOR OUTLOOK ON MARKET

1. Overview

- Vendors were interviewed in an informal manner that was designed to encourage them to provide information.

- Vendors that were interviewed included STS, Dennison, Creative Data, RIS and Island Pacific.

2. Information from Vendors

- Market segment served.

  STS - Small single stores to chains of up to 150 stores (hottest area of market)

  RIS - Speciality stores, junior department stores, some hard goods stores but not large chains (about 18 installed).

  Creative Data - large retail including department stores, discount chains and large sporting goods stores.

  Dennison - larger retail business

  Island Pacific - both small and large retail companies

- System Advantages

  STS - Total merchandising systems that allows a great degree of modification. System really allows client to tell what is selling as well as when, where and why. Cash register polling is also offered.

INPUT

RIS - Total retail package that can be back office or on-line with POS. Great deal of flexibility.

Creative - Essentially two systems, purchase order management data and inventory control which are sold to stores that are already somewhat computerized and need systems to fill in or upgrade certain areas of operation. Very flexible approach.

Dennison - Larger retail system that will run on IBM computers and which really addresses larger retail problems.

Island Pacific - Can meet the needs of small as well as large retailers.

- Decision Making considerations for Prospects

STS - System flexibility and features, price, reputation and knowledge of retail business

RIS - System features, price, reputation in retail industry.

Creative Data - Flexibility, ability to work with existing systems, price.

Dennison - The extent to which we are known in the retail world, the comprehensive nature of the system, the fact that the system runs on IBM.

Island Pacific - Flexibility of our software, the fact that it runs on IBM, the way that it meets retail needs, price.

- What New Developments May Occur in Retail Systems.

STS - A small retail system might be offered on new, more powerful IBM micros that could be connected to IBM mainframes. Retail systems may be sold to many other types of business.

RIS - not sure.

Creative Data - New areas of retail business such as human resources may become more important.

Dennison - Systems may be designed to meet the total needs of smaller establishments.

Island Pacific - not sure

- Competitor Recognition

  - STS names IBM, Creative Data and CSI during discussions.

  - RIS mentioned IBM, NCR and STS.

  - Creative Data noted IBM, STS and Island Pacific.

  - Dennison mentioned NCR and IBM and noted a new system that IBM has.

  - Island Pacific mentioned Creative Data, Paris and Dennison.

- How to Attract Attention of Clients

  - STS stressed a consultative, educating role in sales and the use of shows and conferences.

  - RIS mentioned mailings, advertisements and contacts in the business.

  - Creative Data mentioned the use of lists to locate and determine the level of computerization in stores and a consultative approach toward selling.

- Dennison noted that contacts from other areas of their business supplied leads and discussed the use of a helpful advisory approach in making contact.

- Island Pacific mentioned that users help to spread the word.

● These vendors discussed difficulties in establishing contact with retail stores.

V.   POTENTIAL MARKET FOR CSI

A.   OVERVIEW

- Three factors must be considered in estimating the potential market for CSI systems in segments of the retail industry:

    - the size of the segments

    - the extent to which favorable opportunities exist in those segments

    - the ability of CSI to capitalize on favorable opportunities

- This study investigated seven segments of the retail industry. It did not investigate many segments such as shoe stores or hardware stores where an on-line retail merchandising system could also be useful.

B.   SIZE OF MARKET SEGMENTS

- The size of market segments has been estimated by reviewing data from Dun & Bradstreet and the Census of Retail Trade published by the Department of Commerce. Information was also obtained from vendors in the retail business and several publishers serving the retail market.

- From this review, a set of figures was developed to be tested with vendors and retail stores that responded to this study. The figures were adjusted on the basis of comments received.   One industry analyst noted that many department stores were bunched together between $10 and $50 million just as many retail specialty stores are bunched between $2 and $10 million.

EXHIBIT V-1

SIZING MARKETS

	TYPE OF MARKET	ESTIMATE OF SIZE IN 1983	ESTIMATE OF AAGR FOR TYPE OF MARKET
A.	Specialty Apparel ($2-10 million)	4,000	3%
B.	Discount Chain ($20-50 million)	175	3%
C.	Discount Chain ($50-300 million)	125	2%
D.	Specialty Apparel ($10-100 million)	250	2%
E.	Junior Department ($10-200 million)	1,900	1%
T.	Off Price (above $2 million)	90	2%
H.	Outlet (above $2 million)	100	1%

Favorable Opportunities by by Market Type

Percent of the Market Segment that offers Opportunities Ranked as possible or better, without limitation on the computer to be used.

Type of Market	
A	53%
B	40%
C	10%
D	20%
E	20%
T	22%
H	20%

INPUT

- Growth rates were estimated on the basis of data gathered during this activity as well.

- The estimates and growth rates for types or segments of the markets is shown in Exhibit V-1.

C.   POTENTIAL FOR CSI

- The percentage of favorable opportunities for sales that were uncovered in section III-C can be used to estimate the opportunities that exist within market segments. The decisions which retail establishments hope to make in the next two years were divided evenly over that period although some firms hope to make decisions in 12 months or less. This is shown in Exhibit V-2.

- In addition to the growth of market segments, growth in opportunities will come from the willingness of a greater percentage of the market segment to move up to or convert to systems like those of CSI.

    - The availability of the system on IBM equipment and in modules that persuade more stores to consider it are factors that could encourage such growth.

    - Seminars on the CSI systems as well as other marketing steps could have an impact as well.

- New opportunities will also become available when retail firms think of installing more systems in stores. This is not a significant factor yet outside of segments C and E.

- Sales of the CSI system in the Northeast (New England and Mid Atlantic) Market were approximated as shown in Exhibit V-3 by market segment by using a table of factors that was obtained from data in the Census of Retail Trade. These factors were reviewed in interviews with stores in these segments as well as with industry experts.

EXHIBIT V-2

OPPORTUNITIES FOR SALES

MARKET SEGMENTS	NUMBER OF FAVORABLE	4/84-4/85	4/85-4/86
A	2120	1060	1060
AAGR A	64	64	66
B	70	35	35
AAGR B	2	2	2
C	18	9	9
AAGR C	.25	–	–
D	50	25	25
AAGR D	1	1	1
E*	380	190	190
AAGR E	3.8	4	4
T	20	10	10
AAGR T	.4	–	–
H	20	10	10
AAGR H	.2	–	–

* Survey was made on a sample of stores above $50 million revenue. This projection is made for stores mostly below this size.

EXHIBIT V-3

MARKET SEGMENT	PERCENTAGE OF OPPORTUNITIES IN NORTHEAST	OPPORTUNITIES 4/84-4/85	4/85-4/86
A	.25	281	282
B	.25	9	9
C	.25	2	2
D	.26	7	7
E	.17	33	33
T	.28	3	3
H	.29	3	3

INPUT